

Please add the following new claims:

21. A method for manufacturing an optoelectronic waveguiding device, comprising steps of:
- forming a first layered structure on a substrate, said first layered structure comprising a first optical confinement layer, a first MQW layer, and a second optical confinement layer;
 - forming a protection mask on or over said first layered structure in part which should become a first optoelectronic device element;
 - etching other than part where said protection mask has been formed, and thereby etched said first layered structure comprising a first optical confinement layer, a first MQW layer, and a second optical confinement layer at said other than part;
 - forming a second layered structure on said substrate which exposed by said selective etching process, said second layered structure comprising a third optical confinement layer, a second MQW layer, and a forth optical confinement layer, and said second layered structure being formed a first butt-joint process;
 - forming a second mask that has an opening in the vicinity of a crystal defect area formed in the vicinity of said protection mask, removing said crystal defect area which is not masked and exposed, and then exposed said substrate at said crystal defect area; and
 - forming an third optical waveguide made of a bulk crystal over said substrate at said crystal defect area,
 - wherein each a first and second optical waveguides in said at least said first and second layered structures are connected to each other with said third optical waveguide.
22. A method for manufacturing an optoelectronic waveguiding device according to Claim 21, wherein said first layered structures is a laser part and said second layered structures is a modulator part.
23. A method for manufacturing an optoelectronic waveguiding device according to Claim 21, wherein said first layered structures is a modulator laser part and said second layered structures is a laser part.